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12 UNITED STATES DISTRICT COURT
13 NORTHERN DISTRICT OF CALIFORNIA
14 SAN FRANCISCO DIVISION

15 ORACLE AMERICA, INC.,

16 Plaintiffs,

17 v.

18 GOOGLE INC.,

19 Defendant.
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Case No. 3:10-cv-03561 WHA

**GOOGLE'S OPPOSITION TO ORACLE'S
RULE 50(A) MOTION FOR JUDGMENT
AS A MATTER OF LAW**

Trial Date: May 9, 2016
Dept: Courtroom 8, 19th Fl.
Judge: Hon. William Alsup

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Judgment as a matter of law “is properly granted *only if no reasonable juror* could find in the non-moving party’s favor.” *Mangum v. Action Collection Serv., Inc.*, 575 F.3d 935, 938 (9th Cir. 2009) (quoting *Torres v. City of L.A.*, 548 F.3d 1197, 1205 (9th Cir. 2008)) (emphasis added). The court “must view the evidence in the light most favorable to the nonmoving party ... and draw all reasonable inferences in that party’s favor.” *EEOC v. Go Daddy Software, Inc.*, 581 F.3d 951, 961 (9th Cir. 2009) (alteration in original) (quoting *Josephs v. Pac. Bell*, 443 F.3d 1050, 1062 (9th Cir. 2006)).

Google has offered sufficient evidence for a jury to find in its favor on fair use. First, Android is highly transformative. It is an unprecedented, open-source, full-stack mobile operating system, an entirely new context for the declarations/SSO for the 37 API packages from Java SE—the copyrighted work, which was not designed for a smartphone. Moreover, the then-CEO of Sun and all of Google’s leading executives involved in Android testified that they understood the declarations/SSO of the APIs could be freely used, affirming Google’s good faith. Second, Google provided significant evidence that the declarations/SSO are predominantly functional, rather than creative. Third, the jury heard evidence that Google used only what was necessary to transform just the declarations/SSO of the 37 Java API packages at issue into a full-stack mobile operating system, an extremely limited use that weighs in Google’s favor. Finally, Google put on evidence that its actions comported with Sun’s business practices, and that Android is not a substitute for Java SE (nor Java ME) and does not threaten to harm any valid “potential market” for the copyrighted work. Accordingly, the Court should deny Oracle’s motion for judgment as a matter of law.

I. A REASONABLE JURY COULD FIND THAT THE PURPOSE AND CHARACTER OF GOOGLE’S USE OF THE 37 API PACKAGES IN ANDROID FAVORS FAIR USE.

The first factor of the fair use test requires an examination of the “purpose and character” of the use. 17 U.S.C. §107(1).¹ Courts have established a two-part inquiry for this factor: (1)

¹ Oracle argues that the evidence weighs against Google on the first factor because the manner in which Google used the Java SE APIs does not fit any of the examples enumerated in the copyright statute. ECF 1914 at 3. Yet the charging conference, Oracle conceded, as it must, that the statutory factors are not limiting. *Tr.* 1984:14-16.

whether and to what extent the new work is transformative; and (2) whether the use serves a commercial purpose. *Oracle Am.*, 750 F.3d at 1374 (citations omitted); *see also Campbell v. Acuff-Rose Music, Inc.*, 510 U.S. 569, 579 (the more transformative the new work, the less significant commercialism is).

A. Google’s use of the 37 Java SE API packages was highly transformative.

Google has put forth extensive evidence that its use of the declarations/SSO of the 37 API packages was transformative, and that the transformative nature of Android outweighs the commercial aspects of the use. Oracle inexplicably argues that Google’s only evidence of transformativeness is the deposition of Terrence Barr. Mot. at 3. Not so. As detailed below, Google introduced extensive evidence of how Android offered unprecedented computing capabilities in the constrained environment of a mobile platform.

1. Commercial use does not negate fair use.

A finding that a use is commercial does not necessitate a finding that the use is not fair. In fact, the Federal Circuit remanded this case for trial on fair use, despite finding that Google’s use of the asserted works was commercial. *Oracle Am.*, 750 F.3d at 1376. Moreover, the Supreme Court has rejected the position that “commerciality” carries “presumptive force against a finding of fair use.” *Campbell*, 510 U.S. at 584. Instead, the Supreme Court instructs that “the more transformative the new work, the less will be the significance of other factors like commercialism, that may weigh against a finding of fair use.” *Id.* at 579. That is because “the goal of copyright, to promote science and the arts, is generally furthered by the creation of transformative works. Such works lie at the heart of the fair use doctrine’s guarantee of breathing space within the confines of copyright.” *Id.* (citations omitted). Courts are “free to consider the public benefit resulting from a particular use notwithstanding the fact that the alleged infringer may gain commercially.” *Sega*, 977 F.2d at 1523. Here, Google does not contest Android’s commercial nature, but more importantly, the evidence shows that Google’s use was highly transformative.

Additionally, Oracle has not identified any connection between Google’s revenues and the declarations/SSO. Mot. at 2. Google’s revenues arise from its pre-existing search and ad

technologies, not from Android. *Id.* (citing testimony of Eric Schmidt that “virtually all the revenue of Google comes from its advertising”). Oracle’s economic expert Dr. Adam Jaffe, testified that Google’s search and ad technology are separate from Android. Tr. 1867:3-1868:25. Oracle’s citations to cases involving revenues “far lower” than “billions of dollars” are inapposite, because those cases involve revenues actually derived from use of the copyrighted work. *See* Mot. at 2 (citing *Gaylord v. United States*, 595 F.3d 1364, 1374 (Fed. Cir. 2010); *Stewart v. Abend*, 495 U.S. 207, 237 (1990); *Itar-Tass Russian News Agency v. Russian Kurier, Inc.*, 886 F. Supp. 1120, 1130-31 (S.D.N.Y. 1995); *Morris v. Young*, 925 F. Supp. 2d 1078, 1084 (C.D. Cal. 2013)). None of these cases involve revenues arising from unrelated technology or products, and thus are irrelevant to the question of commercialism in this case.

2. Google transformed the declarations/SSO of the Java API packages into a new creation: Android.

A use is “transformative” if it “adds something new, with a further purpose or different character, altering the first with new expression, meaning, or message.” *Campbell*, 510 U.S. at 584. To assess the transformative nature of a use, courts consider whether the party uses the asserted work “in a different context such that the plaintiff’s work is transformed into a new creation.” *Perfect 10, Inc. v. Amazon.com, Inc.*, 508 F.3d 1146, 1165 (9th Cir 2007) (*quoting* *Wall Data Inc. v. L.A. County Sheriff’s Dep’t*, 447 F.3d 769, 778 (9th Cir. 2006)); *accord* ECF 1928 at 13 (Court’s final charge to the Jury). The Ninth Circuit has ruled that “even making an exact copy of a work may be transformative so long as the copy serves a different function than the original work.” *Perfect 10*, 508 F.3d at 1165; *see also* *Kelly v. Arriba Soft Corp.*, 336 F.3d 811, 818-19 (9th Cir. 2002) (finding use of “exact images” transformative and fair use).

Google has offered substantial evidence that it used the declarations/SSO from the 37 Java SE API packages in a totally “different context” and that Android is, in fact, a “new creation.”

a. Android was different than anything seen before.

Android chief Andy Rubin testified that there had been little innovation in the cell phone space prior to Android. It was “really, really hard to build a phone” because there “was a whole ecosystem of software developers” and an OEM would “have to aggregate all these different

1 pieces, like pieces of a puzzle. And they would have to build a video player from one company,
 2 and an operating system from another company, and the user interface from a third company.”
 3 Tr. 623:2-21 (Rubin); *see also* Tr. 347:14-348:7 (E. Schmidt) (Before Android, building a
 4 smartphone operating system required different licenses from different parties.). The result “just
 5 wasn’t a good user experience” for the consumer. Tr. 623:2-21 (Rubin). As Google CEO Larry
 6 Page testified, Google was frustrated with the state of phones, many of which had Java on them.
 7 Tr. 1842:20-23 (Page). Google had a “closet” full of phones, and Google’s software wouldn’t
 8 work on any of them. Tr. 1842:20-1843:3 (Page).

9 Java SE was not a solution to the challenges that creating a smartphone presents. As Dr.
 10 Astrachan explained, Java SE was designed for servers and desktop computers, and using all 166
 11 packages from Java SE would not be appropriate for a mobile platform. Tr. 1935:6-19
 12 (Astrachan). As an example of the problem, Dr. Astrachan pointed to the failed SavaJe phone,
 13 which he testified missed a key step in not selectively using only certain API packages. *Id.*
 14 Indeed, Sun was never able to create a smartphone (or a smartphone operating system), despite its
 15 longtime familiarity with the declarations and SSO from the 37 packages, along with their
 16 implementations and more than 100 other packages in Java SE. Tr. 1238:13-19 (Astrachan).

17 Android solved these problems by making the world’s first open-source, vertical full-stack
 18 operating system. Tr. 347:14-348:7 (E. Schmidt); Tr. 623:2-21, Tr. 641:18-642:1 (Rubin); TX 1;
 19 Tr. 1862:12-17 (Jaffe: there is no Java product that does everything a smartphone needs to do).
 20 Google’s task was monumental. Eric Schmidt, Google’s CEO at the time of Android’s
 21 development, testified that it took three years to develop Android after the acquisition because of
 22 the “tremendous number of pieces to make the magic happen on these smartphones.” Tr. 365:2-6
 23 (E. Schmidt). Google witness Dr. Joshua Bloch, who worked at Sun and then at Google as Chief
 24 Java Architect, testified that creating a platform in the “constrained environment” of a mobile
 25 phone was “quite a challenge.” Tr. 996:11-997:3 (Bloch).

26 The result of Google’s work was a “revolutionary” open-source mobile platform,
 27 “completely different from any other approach.” Tr. 347:14-348:7 (E. Schmidt); *see also* Tr.
 28 348:21-349:1 (E. Schmidt: “Our view of Android was there was never anything like it and it was

1 completely different from any other approach. There was nothing like -- we were building
 2 something new from our experience.”). Oracle’s economist Dr. Jaffe agreed that it was a feat for
 3 Google to establish Android as a new, viable mobile platform, a feat that Microsoft, Facebook,
 4 Amazon, Sun, and Oracle have all failed to accomplish. Tr. 1784:25-1785:19 (Jaffe).

5 **b. A mobile platform is a new context with unique challenges and**
 6 **opportunities.**

7 In creating Android, Google incorporated the declarations/SSO of the 37 API packages
 8 into an entirely new context. Dr. Bloch testified that a smartphone entails a unique platform very
 9 different from desktops and servers. Tr. 995:11-996:14 (Bloch). He further explained that
 10 “mobile devices have really different constraints from those servers and desktops for which Java
 11 2 SE was written.” Tr. 996:14-16 (Bloch). These include differences in power supply, memory
 12 availability, and the power of the processing chips. *Id.* at 996:17-997:3.

13 Google’s expert Dr. Owen Astrachan explained that Android’s operating system is a
 14 whole new context for the 37 declarations/SSO in the Java API packages. First, Google
 15 selectively used the declarations/SSO of only 37 of the 166 Java SE API packages, thereby using
 16 only the declarations needed for a smartphone, rather than the entirety of Java SE. Tr. 1935:6-19
 17 (Astrachan). Second, Google implemented those declarations with code optimized for a mobile
 18 platform. *Id.* Dan Bornstein, who was the technical lead for the Android virtual machine and
 19 core libraries, explained that Google had to modify the implementing code, since it had been
 20 designed for computers and data centers, not mobile devices. Tr. 1097:19-1098:11. To help them
 21 fit onto a mobile device, the new implementations of the 37 API packages were 80 percent of the
 22 size of the SE implementations. Tr. 1235:10-16 (Astrachan).

23 Google also combined the declarations/SSO with new libraries designed for a mobile
 24 platform. Tr. 1227:14-1228:22 (Astrachan). The new libraries are for web browsing, location
 25 awareness, accelerometers for responsiveness to phone shaking, cameras—“features that you
 26 wouldn’t expect on desktop or laptop computers.” Tr. 1228:12-22 (Astrachan). Mr. Rubin
 27 testified that these new functionalities were not available in the Java SE platform. Tr. 672:15-
 28 673:7 (Rubin). Mr. Rubin and Mr. Bornstein testified that Google integrated open source

1 libraries written in C++ or Java for mobile devices specifically. Tr. 669:6-9 (Rubin); Tr. 1109:7-
 2 15 (Bornstein). These included WebKit for browsing, Open GL for graphics, and SQLite for
 3 database access. Tr. 1229:15-1230:7 (Astrachan); 1602:10-18 (D. Schmidt). In assembling all
 4 this software, Google had to customize its work for the battery and memory limitations of a
 5 smartphone. Tr. 1229:7-1230:7 (Astrachan). Android also has an application framework layer,
 6 which includes a graphical user interface, telephony services, a camera, multimedia, application
 7 frameworks, application distribution, an activity manager, and a location manager. Tr. 1604:4-
 8 1605:16 (D. Schmidt). In addition, Google built the Dalvik Virtual Machine, which was also
 9 optimized for the power and memory constraints of a mobile platform. Tr. 1235:24-1236:13
 10 (Astrachan). Google built all of this on top of an enhanced version of Linux created with
 11 Android-specific features, including inter-process communications and sophisticated power
 12 management. Tr. 1227:14-19 (Astrachan); Tr. 1599:5-17 (D. Schmidt); 1600:5-23 (D. Schmidt);
 13 1601:15-21 (D. Schmidt).

14 Not including the Linux kernel, the resulting platform amounted to 15 million lines of
 15 code. Tr. 1245:4-7 (Astrachan); *see also* Tr. 1598:16-20 (Oracle expert Professor Douglas
 16 Schmidt considers Android “a massive humongoloid thing”). The new implementing code,
 17 libraries, Dalvik Virtual Machine, and Linux deployment created an entirely new context for the
 18 declarations/SSO. Professor Schmidt testified that this new context of mobile cloud computing is
 19 unprecedented, and the greatest evolution he has seen since he became a professor. Tr. 1610:7-
 20 1611:15; 1612:4-6 (D. Schmidt).

21 Google’s open source distribution of Android also makes it transformative. *See* Tr.
 22 1231:4-7 (Astrachan). The Android source code is free for anyone to use. Mr. Rubin testified
 23 that he and his team “innovated this model of open source,” for which they could forego a sales
 24 team, and instead “create the perfect operating system and the perfect smartphone, and let the
 25 open source adoption spread it across the globe.” Tr. 622:8-15 (Rubin). The open sourcing of
 26 Android has led to the creation of a broad ecosystem and further innovation. For example,
 27 Amazon created the operating system for Kindle Fire based on Android, and WileyFox created
 28 handsets based on CyanogenMod operating system, which was based on Android. Tr. 1237:16-

1238:12 (Astrachan). This is exactly the type of innovation that fair use is intended to spur. *See, e.g., Sony BMG Music v. Tenenbaum*, 672 F. Supp. 2d 217, 226 (2009) (“The Act ‘encourages others to build freely upon the ideas and information conveyed by a work.’” (citing *Feist Publ’ns, Inc. v. Rural Tel. Serv. Co.*, 499 U.S. 340, 349-50 (1991))).

5 **B. Google Acted in Good Faith**

6 The Ninth Circuit has held that “fair use is appropriate where a ‘reasonable copyright
7 owner’ would have consented to the use, i.e., where the ‘custom or public policy’ at the time
8 would have defined the use as reasonable,” and that this is an appropriate issue to bear in mind
9 when balancing the fair use factors. *Wall Data*, 447 F.3d at 778 (citation omitted). The evidence
10 shows that Google reasonably believed that it was permissible to use the Java API packages so
11 long as it wrote its own implementing code; which, Google did.² Moreover, even if Oracle were
12 correct in suggesting that Google understood that the declarations/SSO for the 37 API packages at
13 issue constituted protectable copyrighted material (and the evidence is to the contrary), that would
14 not be dispositive of the fair use question. *Campbell*, 510 U.S. 585 (rejecting argument that a
15 party’s request for permission to use the copyrighted work weighs against a finding of fair use).
16 On the contrary, “if the use is otherwise fair, then no permission need be sought or granted.” *Id.*
17 *n.18; see also Fisher v. Dees*, 794 F.2d 432, 437 (9th Cir. 1986) (using a song after expressly
18 being denied permission to do so is not bad faith).

19 **1. All of Google’s witnesses testified that they believed the** 20 **declarations/SSO of the API packages were free and open to use.**

21 Google’s most senior executives involved with Android all testified that when they
22 created Android, they believed they were free to use the declarations/SSO of the API packages.
23 Larry Page testified that he understood that “it was established industry practice that the API, just
24 the headers of those things, could be taken and basically reimplemented very carefully, not to use
25 any of the existing implementation of those systems. That’s been done many, many times.” Tr.
26 1846:18-22 (Page). Mr. Page added, “I think we acted very responsibly and carefully around

27 ² For the reasons stated in Google’s response to the Court’s modified fair use instructions, Google
28 does not concede that “propriety of the accused infringer’s conduct or good or bad faith” is a
relevant consideration under the first fair use factor. ECF 1743 at 1-2.

1 these intellectual property issues” and he believes the “APIs that we used were free and open.”
2 Tr. 1847:23-24; 1840:4-13 (Page).

3 Eric Schmidt, former CTO of Sun and then-Google CEO, testified that at the time Google
4 built Android, he understood that it was permissible to use the Java APIs as long as you wrote
5 your own implementing code, based on “business advice [and] many years of experience in the
6 industry.” Tr. 361:24-362:5 (E. Schmidt). Dr. Schmidt testified that by the time Google began
7 working on Android, he had seen a number of examples of re-implementations of APIs. Tr.
8 363:7-25. Based on Dr. Schmidt’s conversations with then-Sun CEO Jonathan Schwartz, Dr.
9 Schmidt understood that Google’s use of the APIs was appropriate and permissible from Sun’s
10 perspective. Tr. 377:13-378:18 (E. Schmidt).

11 Andy Rubin, who ran Android, testified that he believed there was no problem with
12 Google using the declarations for the development of Android. Tr. 639:2-7 (Rubin). Mr. Rubin
13 relied on his knowledge as a computer scientist about how to build interoperable systems, and he
14 testified in particular about his knowledge of IBM’s use of the Apache Harmony code, as well as
15 another independent implementation of the Java APIs called Bouncy Castle. Tr. 726:9-727:2;
16 732:19-733:5 (Rubin); *see also* TX 2765 (Google agreement with Noser Engineering permitting
17 use of GNU and Apache code). Mr. Bornstein also testified that he believed it was permissible to
18 use the declarations from the 37 API packages because he had seen many new implementations
19 that had “inevitably” used the same declarations. Tr. 1088:2-1089:21 (Bornstein).

20 Thus, the record is replete with evidence that the key players responsible for Android held
21 a good faith belief that Google was allowed to use the declarations/SSO. Oracle elicited no
22 testimony to the contrary from anyone who was there at the time. All Oracle can do is point to
23 the failed negotiations with Sun and a purported sense of urgency in getting Android to market.
24 First, Google demonstrated that the negotiations with Sun related to a joint co-development
25 partnership focused on Sun’s implementations of the libraries and virtual machines, and branding
26 and cooperation, not the use of the declarations/SSO in Google’s independent implementation.
27 Tr. 639:22-640:4 (Rubin); 1846:3-1847:3 (Page), 1847:23-24 (Page); TX 617. As Mr. Page
28 testified, the deal did not work out, but Sun still publicly supported Android. Tr. 1832:8-13

(Page). Furthermore, Mr. Rubin explained that he never felt any pressure from Mr. Page to get Android ready; that wasn't his management style. Tr. 761:13-16 (Rubin). Similarly, Mr. Page testified that he did not believe there was some "window" in which Google had to get Android to market. Tr. 1845:5-9 (Page). Accordingly, the jury may rely on Google's witnesses that they believed that they were free to use the declarations/SSO of the 37 API packages.

2. Sun's practice was to promote the use and re-use of the "free and open" Java APIs.

Google also put on extensive evidence that prior to its acquisition by Oracle, Sun had always been Sun's policy that the APIs were free and open for anyone to use. Mr. Schwartz testified that Sun marketed the APIs as free and open, that they were "absolutely" free and open (like the language), that the Java APIs were never sold or licensed separately from the language during his tenure at Sun, and that he used the term "open APIs" while he was at Sun. Tr. 501:8-23 (Schwartz). Mr. Schwartz explained: "So the strategy, which had been the strategy long before I joined Sun, was we agree on APIs, on these open APIs; we share them; and then we compete on implementations." Tr. 500:21-23 (Schwartz).

Dr. Bloch, who was a Sun Distinguished Engineer, testified that while he was at Sun, he hoped other programmers would create independent implementations of Java APIs, because that would be "the mark of a successful API." Tr. 974:9-21 (Bloch). In his work at Sun, Dr. Bloch did "everything in [his] power" to promote adoption of the APIs, including giving lectures, writing books, and talking to engineers. *Id.* Dr. Bloch always believed that engineers were "free to re-implement each other's APIs." Tr. 994:10-11 (Bloch).

Moreover, Sun re-implemented APIs of others in creating the Java APIs themselves. Dr. Bloch testified that when he was at Sun, Sun implemented an API from Perl 5 without asking for permission. Tr. 991:18-992:25 (Bloch). Sun downloaded the specification and then wrote its own implementing code, and Sun chose to use the Perl API to take advantage of existing programmers' familiarity with it. *Id.* Dr. Bloch understood that this re-implementation was permissible because he had been in the industry for a long time, and "we have always felt free to re-implement each other's APIs." Tr. 994:6-11 (Bloch). Dr. Schmidt also offered an example

1 from his tenure at Sun of the company implementing interfaces from Windows to build its own
2 Windows implementation (“WABI”) without a license. Tr. 362:22-363:6 (E. Schmidt).

3 **3. Sun knew about Android’s use of the APIs and welcomed Google into**
4 **the Java community.**

5 Not only did Sun promote the re-implementation of its APIs, it knew that Google was
6 doing exactly that in creating Android. Dr. Schmidt testified that he talked to Mr. Schwartz about
7 Android multiple times, and that he told Mr. Schwartz the details about Android, which would
8 have included the use of the APIs. Tr. 364:8-15 (E. Schmidt). Sun Vice President Alan Brenner
9 also testified that after the negotiations with Sun ended, he thought Google would do an
10 independent implementation of the APIs. Tr. 1690:10-1691:5 (Brenner).

11 Sun then welcomed Android into the Java community both publicly and privately. On his
12 Sun CEO blog, which was an official statement of the company, Mr. Schwartz wrote “I just
13 wanted to add my voice to the chorus of others from Sun in offering my heartfelt congratulations
14 to Google on the announcement of their new Java/Linux phone platform, Android.
15 Congratulations!” TX 2352; Tr. 539:4-20 (Schwartz). He added that Google and the Open
16 Handset Alliance had “strapped another set of rockets to the community’s momentum.” TX
17 2352. When Dr. Schmidt read Mr. Schwartz’s blog post, he understood that Google and Sun
18 together were going to “grow this ecosystem bigger and bigger and bigger as a result of the Open
19 Handset Alliance and their development work on top of what we were doing.” Tr. 369:2-12 (E.
20 Schmidt). Mr. Rubin was also excited when he saw the blog because it put “Sun’s support behind
21 our open source mobile operating system. In, you know, no uncertain terms, it was thrilling.” Tr.
22 744:13-24 (Rubin).

23 Privately, Mr. Schwartz also expressed his support for Android. In a 2008 email, he wrote
24 to Dr. Schmidt “On your deal, don’t hesitate to let me know if I or Sun can be supportive.” TX
25 5987. At the time of the announcement, he wrote “Let us know how we can help support your
26 announcements next week. We’re happy to do so.” TX 3441. Dr. Schmidt and Mr. Schwartz
27 both testified that they continued to talk during and after the release and shipping of Android, and
28 that Mr. Schwartz never expressed disapproval of Android, never stated that Sun needed a

1 license, and never suggested that Google's use of the declarations/SSO was impermissible or
 2 wrong in any way. Tr. 377:13-378:18 (E. Schmidt); Tr. 556:23-557:5, 558:8-11 (Schwartz).
 3 Sun's head of strategy and business development for Java visited Mr. Rubin after Android's
 4 announcement, and indicated Sun's support for Android. Tr. 744:7-745:13 (Rubin). And,
 5 immediately after Oracle announced its acquisition of Sun, Oracle also publicly embraced
 6 Android, with Oracle CEO Larry Ellison stating at JavaOne: "There are going to be Netbooks
 7 based on Android and I think we can see lots and lots of Java devices, some coming from our
 8 friends at Google." TX 2362; Tr. 1384:1-17 (Catz); *see also* TX 7406 (presentation for meeting
 9 with Ellison and Schmidt).

10 **4. GNU, Apache, and others show a custom of creating independent**
 11 **implementations of APIs, and Sun knew about this industry practice.**

12 Sun knew that Google was not the only entity creating independent implementations of
 13 the Java APIs. There was also significant evidence regarding Sun's awareness of the GNU
 14 Classpath project and the Apache Harmony project. Mr. Schwartz testified that Sun believed that
 15 GNU and Apache's independent implementations of the Java APIs were fair, that there was
 16 nothing Sun could do to stop them, and that such implementations were consistent with Sun's
 17 business practices. Tr. 508:22-509:9; 515:18-24, 517:2-16, 520:15-521:3 (Schwartz).

18 Simon Phipps, Sun's former Chief Open Source officer, testified that Sun was "well
 19 aware" of the Apache Harmony independent implementation of the Java SE platform and GNU
 20 Classpath's independent implementation of the Java SE libraries, and Sun never told Apache or
 21 GNU to stop distributing its code. Tr. 1037:6-14; 1024:17-1028:7 (Phipps); TX 7578. Per its
 22 online FAQ, Sun engaged directly with the Java open source community, and Mr. Phipps testified
 23 that he was in frequent contact with open-source community representatives. Tr. 1023:3-
 24 1027:17; TX 7722. Similarly, when he was at Sun, Dr. Bloch assisted engineers from GNU
 25 Classpath in their work on an independent implementation of the APIs, and their questions helped
 26 Dr. Bloch improve the quality of the APIs. Tr. 989:15-990:7; 990:18-991:17 (Bloch). Dr.
 27 Bloch's boss knew he was supporting GNU, and Dr. Bloch was not aware of anyone at Sun
 28 suggesting that GNU's independent implementation was not acceptable. *Id.* Sun's position was

1 that “the Java ecosystem can support multiple implementations,” and these implementations were
 2 good for Java. Tr. 1026:17-1027:5. Finally, Google presented the testimony of John Duimovich,
 3 Java Chief Technology Officer at IBM. Mr. Duimovich testified that IBM used Apache Harmony
 4 code in its commercial products—Tr. 952:18-19 (12/21/2015 Duimovich Depo. at 51:15-52:1);
 5 TX 7326 at 4—and Mr. Phipps informed his colleagues at Sun’s about IBM’s contribution to
 6 Harmony. TX 7578. These independent implementations of Java SE APIs, done with Sun’s
 7 knowledge, show that there was a common industry practice of independent implementations of
 8 APIs. See Tr. 1250:14-20, 1252:2-5 (Astrachan).

9 **II. A REASONABLE JURY COULD FIND THE NATURE OF THE**
 10 **DECLARATIONS/SSO OF THE 37 API PACKAGES IS HIGHLY FUNCTIONAL.**

11 “Under the Copyright Act, if a work is largely functional, it receives only weak
 12 protection.” *Sega*, 977 F.2d at 1527. This is particularly true when the works are “dictated by the
 13 function to be performed, by considerations of efficiency, or by external factors such as
 14 compatibility requirements and industry demands.” *Id.* (citations omitted); *Computer Assocs.*
 15 *Int’l, Inc. v. Altai, Inc.*, 982 F.2d 693, 709-10 (2d Cir. 1992). Thus, “the fair use doctrine
 16 preserves public access to the ideas and functional elements embedded in copyrighted computer
 17 software programs.” *Sony Computer Entn’t*, 203 F.3d at 603. While Google accepts, for
 18 purposes of this trial, that the declarations/SSO of the Java SE APIs are sufficiently original to
 19 meet the minimum, low threshold for copyrightability, the evidence shows that APIs are more
 20 functional than creative.³

21 Indeed, Google introduced extensive evidence that would support a finding that the
 22 declarations/SSO of the 37 API packages are highly functional. Dr. Astrachan provided detailed
 23 testimony about the functional nature of the declarations/SSO. As an initial matter, Dr. Astrachan
 24 testified that the combined package, class, and method names constitute the structure, sequence,
 25 and organization of an API. Tr. 1928:23-1929:2 (Astrachan). Because the SSO is reflected by
 26 the names of the declarations, they are equivalent for purposes of understanding functionality.

27 ³ Google does not waive and hereby expressly preserves its position that the SSO/declarations
 28 are not protected by copyright law. See, e.g., *Bikram’s Yoga Coll. of India, L.P. v. Evolution*
Yoga, LLC, 803 F.3d 1032 (9th Cir. 2015).

1 Dr. Astrachan further explained that the declarations are short, descriptive and functional
 2 in terms of what they do. Tr. 1241:12-16 (Astrachan). They serve one function: to provide a
 3 connection to the libraries, and each part of the name of the declaration must be descriptive of the
 4 declaration's functionality to allow developers to understand them and use them more effectively.
 5 Tr. 1239:18-25, 1243:2-14 (Astrachan). Programmers would not want the declarations to be long,
 6 complicated, or creative; rather, they want the name to clearly indicate the function of the
 7 declaration. Tr. 1243:15-1244:9 (Astrachan). Dr. Astrachan gave an example of the functionality
 8 and descriptive nature of the declarations by reviewing the method declaration for the
 9 Authenticator class in the java.net package, with which he had not been familiar before Dr.
 10 Reinhold showed it to the jury. Tr. 1925:15-1927:9 (Astrachan). Dr. Astrachan explained that
 11 without knowing anything about the method, he could understand what the "method would do
 12 based simply on its names and its inputs and outputs." Tr. 1927:6-7 (Astrachan). Further,
 13 because of the limitations on how declarations can be written, there are similarities between the
 14 names in Java and other programming languages. Dr. Astrachan explained that there are many
 15 names in C++ and C that are the same as the Java declarations. Tr. 1243:2-1244:9 (Astrachan).
 16 Dr. Astrachan's testimony comports with the description of APIs in the Java Application
 17 Programming Interface, Vol. 1, the reference manual for Java applications, which states that
 18 "[f]irst and foremost, the API should be simple and easy to use." TX 980 at 18.

19 Mr. Schwartz, Dr. Bloch, and Mr. Bornstein also all testified that the declarations/SSO are
 20 a set of functional instructions. As Mr. Schwartz testified, the declarations are like names of
 21 dishes on a menu, *e.g.*, the word "hamburger." The declarations serve to provide a common way
 22 to call on the underlying implementations, *i.e.*, the actual hamburgers. Tr. 502:11-503:20
 23 (Schwartz). Dr. Bloch and Mr. Bornstein testified that Java imposes limitations on the structure,
 24 sequence, and organization of the libraries. Dr. Bloch explained that a computer language "is
 25 completely inflexible ... it has a certain set of rules, and you have to obey those rules; and in
 26 Java, all libraries are organized in that way. They are packages containing classes containing
 27 methods." Tr. 964:18-25 (Bloch). Dr. Bloch further testified to the uncreative nature of naming
 28 the declarations: the declarations should be "as short as possible but no shorter, which basically

1 means you want to provide all the tools that the programmer needs to get the work done but
 2 nothing beyond..." Tr. 971:8-20 (Bloch). For example, a name like java.lang.Math logically
 3 implies to developers that this is the place for the math functions. Tr. 1473:2-5 (Reinhold).
 4 Consistent with Dr. Astrachan, Dr. Bloch testified that Java APIs abide by the rules of other
 5 languages, which makes Java easier for programmers to learn. Tr. 962:2-16 (Bloch). Mr.
 6 Bornstein testified that a programmer who wants to perform a function like "maximum" will
 7 know to use the "max" API because of these straightforward naming conventions. Tr. 1080:24-
 8 1082:8 (Bornstein). In contrast, there is much more flexibility in writing implementations. As
 9 Mr. Bornstein put it, that's where a programmer's "experience and taste" come into play. Tr.
 10 1087:18-1088:1 (Bornstein).

11 By contrast, the record is devoid of evidence showing that the declarations/SSO of the 37
 12 API packages themselves contain any degree of original expression beyond the minimal amount
 13 necessary to qualify for copyright protection. Instead, Oracle points to evidence that the *process*
 14 of designing APIs "is a difficult and creative art," while emphasizing how much Oracle invested
 15 in creating the Java SE platform. Mot. at 15, 18. That is not the proper test under factor two.
 16 The Supreme Court has squarely rejected the very "sweat of the brow" theory of creativity on
 17 which Oracle relies. *See Feist*, 499 U.S. at 359-60.

18 Accordingly, the testimony of Dr. Astrachan, Mr. Schwartz, Dr. Bloch, and Mr.
 19 Bornstein—all accomplished Java programmers—is sufficient for a reasonable jury to conclude
 20 that the declarations/SSO are more functional than creative.

21 **III. A REASONABLE JURY COULD FIND THAT THE AMOUNT AND**
 22 **SUBSTANTIALITY OF THE DECLARATIONS/SSO USED BY GOOGLE**
 23 **FAVORS FAIR USE.**

24 The Ninth Circuit has stated that while "wholesale copying does not preclude fair use, per
 25 se, copying an entire work militates against a finding of fair use." *Worldwide Church of God v.*
 26 *Phila. Church of God, Inc.*, 227 F.3d 1110, 1118 (9th Cir. 2000). Here, Google did not even
 27 come close to copying the entire asserted work. Instead, Google used only what was necessary to
 28 transform the declarations/SSO of the 37 Java API packages at issue into a full-stack operating
 system. This extremely limited use weighs in Google's favor. *Oracle*, 750 F.3d at 1375-76 ("If

1 the secondary user only copies as much as is necessary for his or her intended use, then this factor
 2 will *not weigh against him or her.*”) (citing *Kelly*, 336 F.3d at 821 (9th Cir. 2002)).

3 As a quantitative matter, there is no dispute that only a tiny fraction of declaring code
 4 from the copyrighted works—Java SE 1.4 and 5—is in Android. Per the parties’ stipulation,
 5 which was read to the jury, Android includes approximately 11,500 lines of declaring code from
 6 the copyrighted works. Tr. 1493:8-1494:16 (stipulation); ECF 1901. Compared to the 2.86
 7 million lines of code in the Java SE class libraries and the approximately 5 million lines of code
 8 in Java SE as a whole, the percentages of overlapping declaring code are minuscule—0.40% or
 9 0.23%, respectively. Tr. 1244:21-1245:3 (Astrachan).

10 Furthermore, including the declarations (and their associated SSO) was for the benefit of
 11 developers, who—familiar with the Java programming language—had certain expectations
 12 regarding the language’s APIs. Oracle concedes that some of these are technically necessary to
 13 use the Java programming language. Mot. at 17 n.7; TX 9223. But setting aside what Oracle
 14 claims to be technical requirements in the Java Language Specification, TX 984, developers
 15 would expect to be able to use all of the 37 API packages in order to make effective use of the
 16 language that they were taught in universities and elsewhere as a free language. Programmers
 17 need the 37 API packages to make meaningful use of the language, and Oracle concedes as much
 18 as to least some of the packages. Tr. 983:21-984:1 (Bloch discussing Section 1.3 in TX 984); Tr.
 19 987:17-989:2 (Bloch discussing TX 4027). In addition, Dr. Bloch explained that he generally
 20 considered the APIs he developed to be “an integral part of the Java programming language.” Tr.
 21 978:11-15 (Bloch). Similarly, Dr. Astrachan explained that “developers . . . would expect that if
 22 you’re going to be using the Java programming language, that you have access to a rich suite of
 23 APIs, both the declarations and the libraries.” Tr. 1262:6-9 (Astrachan); *see also* Tr. 1262:3-
 24 1263:3 (Astrachan).

25 Given the underlying purpose—the portability of programming knowledge between
 26 platforms—this evidence strongly supports fair use. Indeed, one must consider “whether the
 27 amount of the work used was ‘reasonable in relation to the purpose of the copying.’” *Morris v.*
 28 *Young*, 925 F. Supp. 2d 1078, 1087 (C.D. Cal. 2013) (citing *Campbell*, 510 U.S. at 586). Here,

1 Google used only that portion that would allow developers to rely on their familiarity with the
 2 Java language. To that end, Google used only so much as was necessary to meet those developer
 3 expectations—the declarations—and otherwise created an independent implementation.

4 As a qualitative matter, Oracle’s senior Java architect, Dr. Mark Reinhold, agreed that the
 5 declaring code is no more substantial than the implementing code that carries out the
 6 functionality. Tr. 1475:11-15 (Reinhold). Because it is the independent implementations that
 7 actually carry out the functionality called by the declaring code, if anything, the evidence shows
 8 that the declarations are relatively less important; while they remained unchanged, the
 9 implementations were tailored for the mobile environment. Tr. 996:11-997:14 (Bloch); Tr.
 10 1234:8-1234:16 (Astrachan). Moreover, there is no allegation in the case that Google used
 11 contiguous lines of code that implement any important functionality (akin, for example, to the
 12 300-word quote at issue in *Harper & Row Publishers, Inc. v. Nation Enters.*, 471 U.S. 539
 13 (1985)). To the contrary, as the evidence shows, Google used only the labels that access the
 14 underlying implementing code.

15 **IV. A REASONABLE JURY COULD FIND THAT GOOGLE’S USE OF THE**
 16 **DECLARATIONS/SSO DID NOT AFFECT THE ACTUAL OR POTENTIAL**
 17 **MARKET FOR JAVA SE.**

18 The fourth factor requires consideration on the “effect of the use on the potential market
 19 for or value for the copyrighted work.” 17 U.S.C. §107(4). Contrary to Oracle’s suggestion, a
 20 presumption or inference of market harm *only applies* to “verbatim copying of the original
 21 [copyrighted work] *in its entirety* for commercial purpose.” *Campbell*, 510 U.S. at 591
 22 (emphasis added). Where, as here, a defendant makes transformative use of only a portion of the
 23 copyrighted work, “market substitution is less certain, and market harm may not be so readily
 24 inferred.” *Id.* Moreover, harm that may result from losing “control over [a] market”—*i.e.*,
 25 through the introduction of a legitimately competing platform that does not “supplant” the
 26 original work—does not constitute cognizable “market harm” under the fourth factor. *Sony*, 203
 27 F.3d at 607-608 (citing *Sega*, 977 F.2d at 1523-24); *see also Cambridge Univ. Press v. Patton*,
 28 769 F.3d 1232, 1276 (11th Cir. 2014) (“The goal of copyright is to stimulate the creation of new
 works, not to furnish copyright holders with control over all markets.”).

A. Google’s transformative use of the declarations/SSO of the 37 API packages in Android does not supplant or supersede the market for the Java SE platform.

By using only the declarations/SSO (not the implementing code) from the Java SE platform that are necessary to meet the expectations of developers using the free and open Java programming language and putting them into a new context—*i.e.*, a full-stack smartphone operating system—Google’s use was transformative. *See* Section I, *supra*. Sun’s former CEO, Mr. Schwartz, testified that Sun never sought to separately license any copyright in the specific declarations/SSO in Java SE used by Google, or any other specific declarations/SSO for any other Java platform in general. Tr. 501:8-14 (Schwartz); *see also* Tr. 1692:22-24 (Brenner). Because Google’s use of the copyrighted material in this case was highly transformative, Android could not have had a cognizable adverse impact on the market for the copyrighted work. *Authors Guild v. HathiTrust*, 755 F.3d 87, 99 (2d Cir. 2014) (“The only market harms that count are the ones that are caused because the secondary use serves as a substitute for the original, not when the secondary use is transformative.”).

B. There is no evidence that Google’s use of the declarations/SSO of the 37 API packages in Android has caused any actual harm to the copyrighted work.

The copyrighted work at issue, Java SE, is designed and licensed for use on desktops and servers, Tr. 1859:23-1860:6 (Jaffe), and the evidence is undisputed that Oracle continues to successfully license Java SE in these markets. Tr. 1860:7-10 (Jaffe); *see also* Tr. 949:18-19 (8/12/2011 Ellison Depo. at 151:10-152:1). Indeed, Oracle’s 30(b)(6) witness Donald Smith testified that, as of November 2015 (*i.e.*, six months ago), Oracle’s Java SE business was still “growing well.” Tr. 1013:12-13 (Smith 11/20/15 Depo. at 277:24-278:7). Oracle did not put forth any contrary evidence in its case-in-chief. Rather, Oracle’s economist, Dr. Adam Jaffe, conceded that he had *conducted no analysis whatsoever* of whether actual revenues for Java SE had gone up or down or that Oracle’s Java SE business has been otherwise affected by Android. Tr. 1860:19-24, 1861:10-23.

Dr. Jaffe’s unequivocal testimony regarding the lack of market harm is sufficient for a

1 reasonable jury to find in Google's favor on factor four.⁴

2 **C. Oracle cannot rely on any alleged harm to Java ME, because there is no**
 3 **evidence that Java ME is a derivative work of Java SE.**

4 Having abandoned any claim to actual harm to the copyrighted work, Oracle's theory at
 5 trial focused almost exclusively on alleged harm to Java ME, on the grounds that Java ME is a
 6 derivative work of Java SE. *Campbell*, 510 U.S. at 590. There is insufficient evidence, however,
 7 for a reasonable jury to find that Java ME is a derivative of any asserted version of Java SE—and
 8 certainly no evidence *compelling* such a finding.

9 In order to qualify as a "derivative work" of an original copyrighted work, the work in
 10 question "must substantially incorporate protected material from the preexisting work." *Micro*
 11 *Star v. Formgen Inc.*, 154 F.3d 1107, 1110 (9th Cir. 1998). The parties agree that the two
 12 asserted works in this case, Java SE 1.4 and Java 2 SE 5, were released in February 2002 and
 13 September 2004, respectively. At trial, however, Sun's former head of Java ME licensing, Alan
 14 Brenner, testified that Java ME was initially created in September 2000—*two years prior to the*
 15 *earliest copyrighted work at issue*. Tr. 1668:13-19 (Brenner). Mr. Brenner likewise testified that
 16 he could not identify any particular protectable expression—let alone a "substantial amount"—
 17 incorporated from any of the asserted copyrighted works in this case into any later versions of
 18 Java ME after February 2002.⁵ Tr. 1691:22-1692:11 (Brenner). Because the original version of
 19 Java ME pre-dates the asserted versions of Java SE in this case, and Oracle has not put forth any
 20 documents or testimony showing that later versions of Java ME incorporated substantial portions
 21 of the declarations/SSO at issue from the Java SE platform after 2002,⁶ there exists no evidence
 22 in the record from which a reasonable jury could conclude that "Java ME" qualifies as a

23 ⁴ As Dr. Astrachan testified, the presence of Android helped to maintain the popularity of the
 24 Java programming language, the most popular programming language in the world—to the
 benefit of Oracle's overall business. Tr. 1245:8-21 (Astrachan).

25 ⁵ Oracle's expert also admitted that Java ME only has around 10-12 API packages, as compared
 26 to the 166 API packages in Java SE. Tr. 1795:8-21 (Jaffe).

27 ⁶ Because the relevant inquiry is whether portions of the declarations/SSO were *added* to later
 28 versions of Java ME released after February 2002, Dr. Astrachan's testimony regarding overlap in
 certain API packages between Java ME and Java SE—without any identification of the specific
 method and classes in those packages and when they were added—is irrelevant to the question of
 those later versions of Java ME are a derivative work. The timing matters.

1 derivative work of Java 2 SE 1.4 and Java 2 SE 5.0.

2 **D. Android is not a market substitute for the Java SE platform.**

3 In addition, as Google’s expert, Dr. Gregory Leonard, testified in response to Oracle’s
4 expert Dr. Jaffe, Google’s use of the declarations/SSO at issue in Android does not supersede
5 Java SE in the market because Android and Java SE are not market substitutes. Tr. 1897:18-
6 1898:10 (Leonard). As noted above, Java SE is designed for use on desktops and servers, not
7 mobile devices like Android. Tr. 1186:25 (Stahl 1/14/16 Depo. at 148:25-149:7); Tr. 917:17-23
8 (Rubin). Mr. Schwartz testified that Sun never adapted Java SE for use in any modern mobile
9 device. *See, e.g.*, Tr. 581:15-21 (Schwartz). Java SE and Android are, as Dr. Leonard observed,
10 “just very different types of products.” Tr. 1898:9-10 (Leonard).

11 In addition, Android does not threaten to harm any valid “potential market” for the
12 copyrighted work, as both Sun and Oracle witnesses conceded that the modern smartphone
13 market is not “traditional, reasonable, or likely to be developed market” for Java SE. *Seltzer v.*
14 *Green Day, Inc.*, 725 F.3d 1170, 1179 (9th Cir. 2013). Mr. Schwartz testified that Java SE was
15 not intended to be licensed for use on mobile phones. *See, e.g.*, Tr. 581:11-14 (Schwartz) (“Q:
16 And how many phones, mobile phones, at this time was Java in, ballpark? A: Well, none of them
17 were running SE. None of them were running desktop Java.”). Likewise, Craig Gering, former
18 head of engineering services for Sun’s Java licensing organization, testified that Sun “never
19 brought a full-stack mobile operating system to market” with Java SE despite many efforts to do
20 so—even before Android came on the scene. Tr. 1194:12-1195:19 (Gering); *see also* Tr. 560:25-
21 561:4 (Schwartz); Tr. 1198:9-18, 1200:1 (Gering); Tr. 1704:3-17 (Brenner); Tr. 1799:15 (Jaffe);
22 Tr. 1799:20-1800:15 (Jaffe); Tr. 1864:23-1865:8 (Jaffe); TX 7362; TX 2052. Moreover, given
23 that the Java SE platform was never designed to work on mobile devices, it comes as no surprise
24 that the only phone that Oracle identified as having used Java SE, SavaJe, turned out to be a
25 failure, even before Android’s release. Tr. 1864:23-1865:5. As Mr. Schwartz testified, “Sun’s
26 failure to build its own Java-based smartphone platform” is in no way “attributable to Android.”
27 Tr. 562:10-12 (Schwartz).

28 In view of this, Oracle’s argument that Java SE competes with, or has the potential to

1 compete with, Android in the modern smartphone platform market does not comport with the
 2 evidence. Mot. at 21. As noted above, neither Sun nor Oracle has ever licensed Java *SE* for use
 3 in a successful mobile device. Oracle’s Vice President of Product Management, Henrik Stahl,
 4 testified that Java ME does not “provide[] the features and functionality needed for a modern
 5 smartphone.” Tr. 1186:25 (Stahl 3/31/16 Depo. at 59:17-22); *see also* Tr. 1188:5-6 (Rizvi
 6 7/28/11 Depo. at 203:4-7); Tr. 1899:16-1900:11 (Leonard). The documentary evidence likewise
 7 supports this conclusion. As early as September 29, 2006—over a year before Android was
 8 released—Sun acknowledged that it was ill-prepared for shift to the market for modern
 9 smartphones. TX 7237 at 3 (“Market Changes Threaten Our Position”), 5 (“Stay The Course and
 10 Revenue Drops”). Similarly, in a 2009 presentation, Sun acknowledged that modern smartphone
 11 operating systems, like iOS and Android, occupy a different market than Java ME or any other
 12 Java platform. *See* TX 2052 at 16. Accordingly, because the evidence shows that Android
 13 devices constitute a different category from those devices running either Java SE *or Java ME*, a
 14 reasonable jury could find that Android’s use of the declarations/SSO at issue does not harm any
 15 actual or potential market for Java SE. Tr. 1898:15-22 (Leonard).

16 As Dr. Leonard testified, Android’s success in the marketplace is attributable to its
 17 execution of the advanced features and functionality associated with the modern smartphone, not
 18 Google’s use of the declarations/SSO from Java SE. Tr. 1904:5-1905:7 (Leonard).

19 **E. Google’s use of the declarations/SSO of the 37 API packages in Android was**
 20 **consistent with Sun’s own business practices.**

21 Moreover, Google has offered substantial evidence rebutting Oracle’s claim that
 22 Android’s use of the 37 API packages has harmed, or may cause harm, to the market for Java SE
 23 through other means, such as through “fragmentation.”

24 Mr. Schwartz testified that Sun had always treated the declarations/SSO of Java SE as
 25 “free and open like the [Java] language” itself. Tr. 501:8-10 (Schwartz); *see also* Tr. 341:1-9 (E.
 26 Schmidt); TX 2041 at 10. The reason for this, as Mr. Schwartz elaborated, is that Sun’s approach
 27 to “open APIs” complemented its business strategy, which was to share the declarations/SSO as
 28 “free and open” and then “compete on implementations.” Tr. 501:20-23 (Schwartz). Sun’s

1 strategy served its overall business objectives to drive the sale of hardware⁷ by increasing the
 2 volume of Java developers. Tr. 610:6-11 (Schwartz); TX 7275; Tr. 1022:16-19 (Phipps) (“[T]he
 3 point of Java was not so much the direct generation of revenue, although that was useful, but
 4 rather that it was creating a marketplace in which Sun was able to sell its products and skills and
 5 the reputation that was a door opener for our sales force”); TX 971 at 3 (“With a strong
 6 commitment to open standards, open interfaces and the open source community, we [Sun] believe
 7 sharing and collaboration is key to our long-term success.”); Tr. 1847:18-1875:18 (Jaffe).

8 As a result, Mr. Schwartz also testified that Sun limited its copyright licensing to its own
 9 proprietary implementations of Java SE—*see* Tr. 501:20-23 (Schwartz). “There is no contention”
 10 in this case that Google used “the implementing code for the 37 APIs” in Android. Tr. 317:8-9.⁸
 11 This is consistent with Mr. Schwartz’s position, as noted above, that third-party implementations
 12 of Java SE were permissible *provided the implementation did not call itself Java*. If a third-party
 13 implementation wanted to call itself “Java,” Sun offered a separate license for that purpose. Tr.
 14 596:10-14 (Schwartz). On the other hand, if an implementation of the declarations/SSO (such as
 15 Android) did not brand itself “Java,” Mr. Schwartz testified that such conduct was consistent with
 16 Sun’s overall business practices. *See* Tr. 508:25-509:3 (Schwartz) (“There was nothing we could
 17 do to stop it. It was completely -- you know, it was fair. It’s what they were -- they weren’t asking
 18 us to put our logo on it, and they weren’t asking us to call it Java or bless or endorse it.”). With
 19 full knowledge of this limitation, Android deliberately refrained from calling itself “Java.” Tr.
 20 657:19-23 (Rubin). As a result, consistent with Sun’s own business practices, Google did not
 21 need to be compatible and take a license from Sun for that purpose. Tr. 596:10-14 (Schwartz).

22 For similar reasons, Android’s use of the declarations/SSO has not, as Oracle now claims,
 23 harmed the market for Java SE through fragmentation. Indeed, as Mr. Schwartz acknowledged in
 24 an internal email when Android was first released, because Android does not call itself “Java,”

25 ⁷ Sales of hardware constituted 95% of Sun’s business. TX 2036 at 12; Tr. 1420:4-13 (Screven).

26 ⁸ While Sun and Google did attempt to negotiate for a license to use Sun’s commercial
 27 implementations of Java in Android as part of a larger co-development deal, Sun never told
 28 Google that it would need a separate license to use the declarations/SSO of those APIs in its own
 implementation should the parties fail to meet agreement. Tr. 484:15-19 (E. Schmidt). To the
 contrary, both Sun (and later Oracle) openly praised Android upon its release. TX 2041; TX
 2939.1.

1 Android cannot fragment (*i.e.*, “fork”) Java SE. TX 1055 at 1. Moreover, by the time Android
 2 was released, Sun was already acknowledging in internal presentations that Java had already been
 3 “[f]ragmented between Java SE and Java ME” and as between other editions of Java for various
 4 types of devices. TX 3508 at 3; *see also* Tr. 558:17-23 (Schwartz).

5 Likewise, in May 2007, Sun/Oracle released (and continues to release) without charge a
 6 version of the Java SE platform called OpenJDK. Tr. 1020:24-1021:4 (Phipps); Tr. 558:12-14
 7 (Schwartz). Sun’s FAQ regarding OpenJDK observed that any third party (including Google)
 8 was and is free to use any portion of the OpenJDK platform (including the declarations/SSO),
 9 without any compatibility requirements, provided it does not call itself “Java.” TX 7722 at 13;
 10 *see also* Tr. 1027:23-1028:8, 1066:8-14 (Phipps); TX 7722 at 9; Tr. 559:2-17 (Schwartz); Tr.
 11 735:15-736:2 (Rubin); TX 971 at 3. In other words, Android could not have harmed Java SE
 12 through fragmentation because Sun had already fragmented Java SE itself.

13 Accordingly, the record contains substantial evidence for allowing a reasonable jury to
 14 conclude that the fourth factor favors Google.

15 **V. ADDITIONAL FAIR USE CONSIDERATIONS**

16 Section 107 lists four factors the courts “shall” consider in determining whether use of
 17 another’s copyrighted work is a “fair use.” But these statutory factors are “not exclusive.” *Sega*,
 18 977 F.2d at 1522. “Rather, the doctrine of fair use is in essence ‘an equitable rule of reason.’” *Id.*
 19 (quoting *Harper & Row Publishers, Inc. v. Nation Enterprises*, 471 U.S. 539, 560 (1985)). The
 20 fair use inquiry is flexible, and it can and does weigh the strength of each factor relative to other
 21 factors “in light of the purposes of copyright.” *Campbell*, 510 U.S. at 578.

22 In this case, there is substantial evidence in the record enabling a reasonable jury to find
 23 that Google’s use of the declarations/SSO of the 37 API packages at issue serves the overall
 24 purpose of copyright: to “promote the Progress of Science and the useful Arts” U.S. Const.,
 25 Art. I, § 8, cl. 8. Indeed, Google’s transformative use of the declarations/SSO in the 37 API
 26 packages has been a boon for the Java programming language, the mobile industry, and the
 27 public. As the testimony of Oracle’s former Senior Principal Technologist and Product Manager,
 28 Terrance Barr, emphasized: “Android was a part of [the] transformation” in the mobile phone

1 industry, Tr. 1203:13 (Barr 12/9/2015 Depo. at 134:18-19)—a transition that Oracle’s expert
 2 described as the greatest evolution he had seen in computing since becoming a professor. Tr.
 3 1610:8-16 (D. Schmidt). Mr. Stahl likewise testified that he believed “the existence of Android is
 4 a positive for the mobile phone market.” Tr. 1186:25 (Stahl 3/31/16 Depo. at 40:21-41:3).

5 As noted above, Dr. Astrachan and Dr. Bloch also testified that the declarations/SSO
 6 chosen by Google are those that Java developers would expect to have available to make
 7 meaningful use of the free and open Java programming language. *See* Section III, *supra*. A jury
 8 can appropriately consider such interoperability and lock-in concerns as part of the fair-use
 9 analysis. Br. for the U.S. as Amicus Curiae at 17, *Google, Inc. v. Oracle Am., Inc.*, 135 S. Ct.
 10 2887 (2015) (No. 14-410).

11 As a result, a reasonable jury could rely on these additional fair use considerations to
 12 conclude that Google’s use of the declarations/SSO in the 37 API packages was a fair use.

13 **VI. GOOGLE IS ENTITLED TO JUDGMENT AS A MATTER OF LAW OF FAIR** 14 **USE.⁹**

15 The Court directed that Google, as part of its opposition to Oracle’s Rule 50(a) motion,
 16 “explain how, if at all, Java programmers knew which classes and methods in the Java library
 17 were technically required to write in the language and which were not.” *See* Request for
 18 Response re Technically Necessary Copying (ECF 1934) at 1:17-18. The reasons stated in
 19 Google’s Motion for Judgment of Law, filed contemporaneously herewith, Google—not
 20 Oracle—is entitled to judgment as a matter of law. *See* Google’s JMOL (filed
 21 contemporaneously herewith).

22 **VII. CONCLUSION**

23 For the reasons stated above, the Court should deny Oracle’s motion for judgment as a
 24 matter of law.

25
 26 ⁹ “A motion for judgment as a matter of law may be made at any time before the case is
 27 submitted to the jury.” Fed. R. Civ. P. 50(a)(2). By separate motion filed herewith, Google
 28 moves for judgment as a matter of law of fair use on the ground that the evidence of record allows
 only one conclusion—namely, that Google’s use of the declarations and SSO in the 37 API
 packages was a fair use.

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